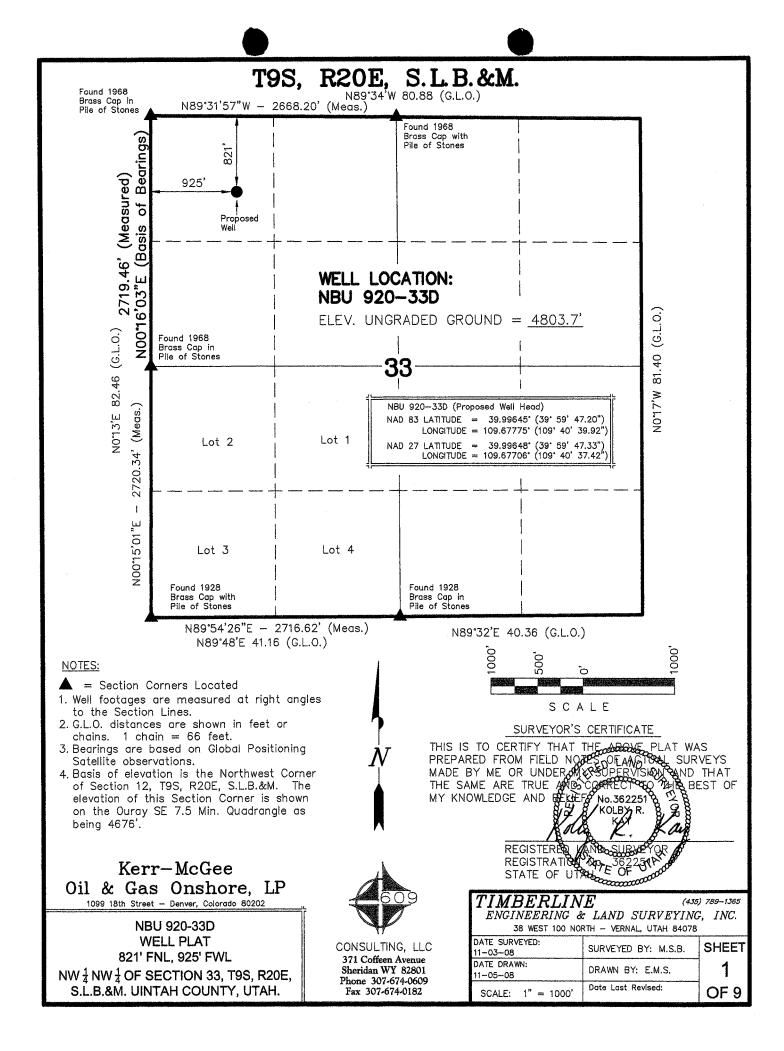
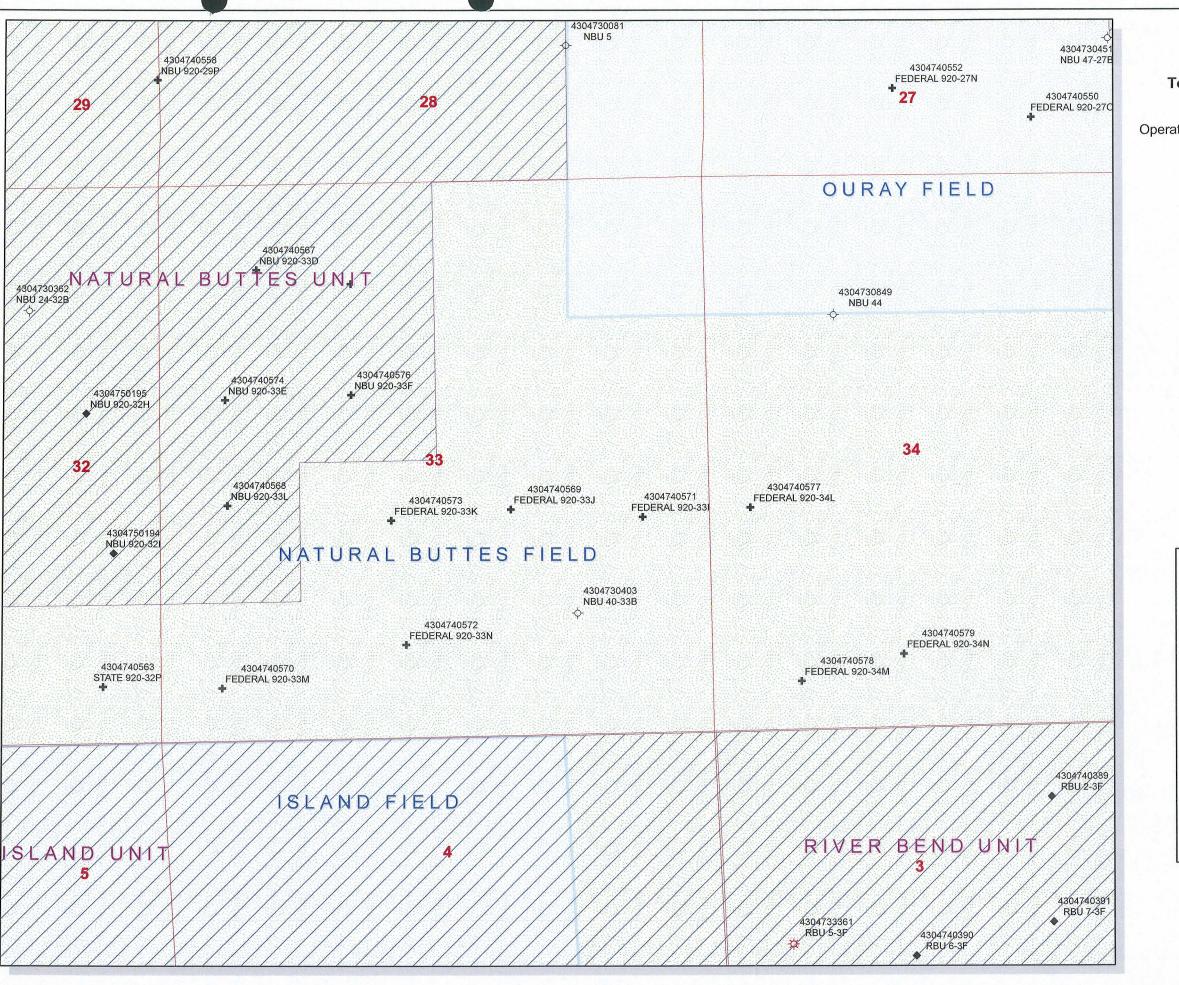
Form 3160-3 (August 2007) UNITED STATE		FORM APPROVED OMB NO. 1004-0137 Expires: July 31, 2010				
DEPARTMENT OF THE	5.	Lease Serial		2010		
BUREAU OF LAND MAN		UTU-1424	430			
APPLICATION FOR PERMIT TO D			6.		ottee or Tribe N	ame
				Ute Tribe		
			7.	If Unit or CA	Agreement, Na	me and No.
1a. Type of Work: X DRILL		89100890	0 <b>A</b>			
1b. Type of Well: Oil Well X Gas Well Other	ene 8.	Lease Name NBU 920-				
2. Name of Operator			9.	API Well No		
Kerr-McGee Oil & Gas Ons	hore, LP			4	3-047-40	5107
3a. Address	3b. Pho	ne No. (include area code)	10		ol, or Explorator	
PO Box 173779 Denver, CO 80217-3779		Raleen White 720-929-6666		Natural Bu	uttes Field	
4. Location of well (Report location clearly and In accordance with a	any State	requirements.*) NAD 83	11.	Sec.,T.,R.,M	.,or Blk.and	Survey or Area
At surface 821' FNL 925' FWL NW/4 NW/4 Lat. 6'2936 × 39.  At proposed prod. zone 44279844	7775	33 T	9S R 201	E S.L.B. & M.		
44279844		386 -109.677.069				
14. Distance in miles and direction from the nearest town or post office	*		12	. County or Pa	rish	13. State
Approximately 39 miles south of Vernal, Utah				Uin	tah	Utah
15. Distance from proposed*		16. No. of acres in lease	17. Spacing	g Unit dedicate	d to this well	
location to nearest 821'	}					
property or lease line, ft.		688.60	Unit	well		
(Also to nearest drlg. unit line, if any)  18. Distance from proposed location*		19. Proposed Depth	20 BLM/1	BIA Bond No.	on file	· Cartacolar and an action of the second second
to nearest well, drilling, completed, 900	Ì	·	ZO. BENT			
applied for, on this lease, ft.		10,500'		- W	48000291	
21. Elevations (Show whether DF. RT, GR, etc.)		<ol><li>Aproximate date work will st</li></ol>	tart*	23. Estimat	ted duration	
4,802 ' GR	KB	ASAP		10 da	iys	
		24. Attachments	<del></del>	<u></u>		
The following, completed in accordance with the requirements of Onshe	ore Oil an	nd Gas Order No. 1 shall be attache	ed to this for	n:	·	
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan ( if the location is on National Forest System L SUPO shall be filed with the appropriate Forest Service Office).</li> </ol>	ands, the	<ul><li>4. Bond to cover the opitem 20 above).</li><li>5. Operator certificatio</li><li>6. Such other site speciauthorized officer.</li></ul>	n,	·	·	•
25. Signature	Name (F	Printed/Typed)	Raleen Whi		Date	
Title Sr Regulatory Analyst		E-mail:		raleen.white(	@anadarko.cor	n
Si Regulatory Aliasyst		Phone:		720-9	929-6666	
Approved By (Signature)	Name (F	Printed/ Typed)			Date	
Title	Office	ann an Aireann an Aireann an Aireann an Aireann an Aireann an Airean an Aireann an Aireann an Airean an Airean				
Application approval does not warrant or certify that the applicant hotoperations thereon.  Conditions of approval, if any, are attached.	lds legal	or equitable title to those rights i	in the subjec	t lease which	would entitle the	applicant to conduct
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make States any false, fictitious or fraudulent statements or representations as			nd willfully t		department or RECEIV	
Same any raise, mentions of fraudition statements of representations as	wany ma	with with the julistiction.			<u>ILVLIV</u>	



APD RECEIVED: 02/17/2009		API NO. ASSIG	NED: 43-047	7-40567
WELL NAME: NBU 920-33D  OPERATOR: KERR-MCGEE OIL & GAS ( N2995 )  CONTACT: RALEEN WHITE		PHONE NUMBER:	720-929-666	6
PROPOSED LOCATION:		INSPECT LOCATN	BY: /	/
NWNW 33 090S 200E		Tech Review	Initials	Date
SURFACE: 0821 FNL 0925 FWL BOTTOM: 0821 FNL 0925 FWL		Engineering		
COUNTY: UINTAH		Geology		<del></del>
LATITUDE: 39.99639 LONGITUDE: -109.6771  UTM SURF EASTINGS: 612936 NORTHINGS: 44279	984	Surface		
FIELD NAME: NATURAL BUTTES (630  LEASE TYPE: 1 - Federal  LEASE NUMBER: UTU-142430  SURFACE OWNER: 2 - Indian		PROPOSED FORMA:		VD
Plat  Bond: Fed[1] Ind[] Sta[] Fee[]  (No. WYB000291 )  Potash (Y/N)  Oil Shale 190-5 (B) or 190-3 or 190-13  Water Permit  (No. 43-8496 )  RDCC Review (Y/N)  (Date: )  WH Fee Surf Agreement (Y/N)  Intent to Commingle (Y/N)	R Unit: R S R D	ON AND SITING:  649-2-3.  NATURAL BUTTES  649-3-2. Gener iting: 460 From Qt 649-3-3. Excep  rilling Unit Board Cause No: Eff Date: Siting: 460 From Qt 649-3-11. Dire	tion    193-1-12-2-1	4 1949 Commitract
STIPULATIONS:	Approx	)		



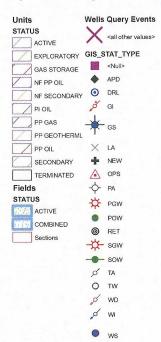
API Number: 4304740567 Well Name: NBU 920-33D

Township 09.0 S Range 20.0 E Section 33

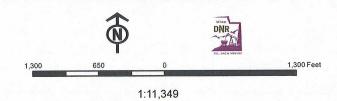
Meridian: SLBM

Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared: Map Produced by Diana Mason







# **United States Department of the Interior**

# BUREAU OF LAND MANAGEMENT Utah State Office P.O. Box 45155 Salt Lake City, Utah 84145-0155

IN REPLY REFER TO: 3160 (UT-922)

March 2, 2009

#### Memorandum

To:

Assistant District Manager Minerals, Vernal District

From:

Michael Coulthard, Petroleum Engineer

Subject:

2009 Plan of Development Natural Buttes Unit Uintah

County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2009 within the Natural Buttes Unit, Uintah County, Utah.

API #

WELL NAME

LOCATION

#### (Proposed PZ Wasatch/MesaVerde)

```
43-047-40553 NBU 920-290 Sec 29 T09S R20E 0746 FSL 2465 FEL
43-047-40554 NBU 920-29L Sec 29 T09S R20E 1572 FSL 0754 FWL
43-047-40555 NBU 920-29M Sec 29 T09S R20E 0159 FSL 0757 FWL
43-047-40556 NBU 920-29I Sec 29 T09S R20E 2164 FSL 0400 FEL
43-047-40557 NBU 920-29K Sec 29 T09S R20E 2208 FSL 2197 FWL
43-047-40558 NBU 920-29P Sec 29 T09S R20E 1038 FSL 0018 FEL
43-047-40559 NBU 920-29J Sec 29 T09S R20E 1977 FSL 1747 FEL
43-047-40560 NBU 920-29N Sec 29 T09S R20E 1254 FSL 2098 FWL
43-047-40542 NBU 920-220 Sec 22 T09S R20E 0198 FSL 2487 FEL
43-047-40543 NBU 920-22K Sec 22 T09S R20E 2128 FSL 2497 FWL
43-047-40544 NBU 920-22I Sec 22 T09S R20E 1965 FSL 0599 FEL
43-047-40545 NBU 920-22J Sec 22 T09S R20E 2086 FSL 1575 FEL
43-047-40538 NBU 920-20B Sec 20 T09S R20E 1229 FNL 1580 FEL
43-047-40536 NBU 920-20C Sec 20 T09S R20E 0963 FNL 1754 FWL
43-047-40537 NBU 920-20F Sec 20 T09S R20E 1794 FNL 2199 FWL
43-047-40539 NBU 920-20E Sec 20 T09S R20E 1644 FNL 1084 FWL
43-047-40540 NBU 920-20D Sec 20 T09S R20E 0646 FNL 0686 FWL
43-047-40541 NBU 920-21J Sec 21 T09S R20E 2346 FSL 1748 FEL
43-047-40561 NBU 920-32E Sec 32 T09S R20E 2052 FNL 0707
43-047-40562 NBU 920-32K Sec 32 T09S R20E 2095 FSL 1813
43-047-40567 NBU 920-33D Sec 33 T09S R20E 0821 FNL 0925
43-047-40568 NBU 920-33L Sec 33 T09S R20E 2299 FSL 0625
43-047-40574 NBU 920-33E Sec 33 T09S R20E 2079 FNL 0611
43-047-40575 NBU 920-33C Sec 33 T09S R20E 0971 FNL 1851 FWL
```

43-047-40576 NBU 920-33F Sec 33 T09S R20E 2048 FNL 1845 FWL 43-047-40535 NBU 920-15PT Sec 15 T09S R20E 0591 FSL 0696 FEL

This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

bcc: File - Natural Buttes Unit

Division of Oil Gas and Mining

Central Files Agr. Sec. Chron Fluid Chron

MCoulthard:mc:3-2-09

Form 3160-3				FORM APPR		
(August 2007)	~			OMB NO. 100		
UNITED STATE		TOD	<u> </u>	Expires: July 3  5. Lease Serial No.	1, 2010	
DEPARTMENT OF THE I						
BUREAU OF LAND MAN.	UTU 142430 6. If Indian, Allottee or Tribe Name					
APPLICATION FOR PERMIT TO D	KILL	OR REENTER	ľ	Ute Tribe	tyanic	
				7. If Unit or CA Agreement, 3	Name and No	
Ia. Type of Work: X DRILL	<u> </u>					
ia. Type of work.	type of work. A DRILL RESERVED.					
1b. Type of Well: Oil Well X Gas Well Other		Single Zone X Multiple Zo	ne	NBU 920-33D		
2. Name of Operator				9. API Well No.		
Kerr-McGee Oil & Gas Onsi	nore, LP		ł	43-047	-40547	
3a. Address	3b, Pho	one No. (include area code)	- <del></del>	Field and Pool, or Explorat		
PO Box 173779	Danielle Piernot			Natural Buttes Field	•	
Denver, CO 80217-3779	L	720-929-6156			. 2	
4. Location of well (Report location clearly and In accordance with a	ıny State	e requirements.*) NAD 83	1	1. Sec., T., R., M., or Blk. and	l Survey or Area	
At surface 821' FNL 925' FWL NW/4 NW/4 Lat.	3	9.99645 Long109.67	777.5	n		
At proposed prod. zone				33 T 9S R 2	20E S.L.B. & M.	
14. Distance in miles and direction from the nearest town or post office	*		1	2. County or Parish	13. State	
Approximately 39 miles south of Vernal, Utah				Uintah	Utah	
15. Distance from proposed*	<del></del>	16. No. of acres in lease	17. Spaci	ng Unit dedicated to this well		
location to nearest 821'		600.60	Y1			
property or lease line, ft.  (Also to nearest drlg. unit line, if any)		688,60	Un	it well		
18. Distance from proposed location*	·····	19. Proposed Depth	20. BLM	BIA Bond No. on file		
to nearest well, drilling, completed, ±900'		10,500'	R1.	RLB0005242		
applied for, on this lease, ft.	<del>~~~</del>	<u> </u>	<u> </u>		<del> </del>	
21. Elevations (Show whether DF, RT, GR, etc.)		22. Aproximate date work will st	art*	23. Estimated duration		
4,802 ' GR	KB	ASAP		10 days		
		24. Attachments				
The following, completed in accordance with the requirements of Onsho	ore Oil a	nd Gas Order No. 1 shall be attache	ed to this fo	rm;		
4 497 to 1		La 15. 14		diantini, indiani, shakin kin sh	61.4	
Well plat certified by a registered surveyor.     A Drilling Plan.		item 20 above).	erations ur	iless covered by existing bond	on file(see	
3. A Surface Use Plan ( if the location is on National Forest System La	ands, the	1	n.			
SUPO shall be filed with the appropriate Forest Service Office).		6. Such other site speci	ific informa	tion and/ or plans as may be re	quired by the a	
		authorized officer.				
25. Signature  Danieur Piurnot	Name (	Printed/Typed)	Danielle Pie	Date	October 15, 2009	
Title	<u></u>	T		anialla Diamat@anadanl		
Regulatory Analysta	eM zu.	E-mail:	u ش	anielle.Piernot@anadark 720-929-6156	co.com	
Approved By Aignature	Name (	Printed/ Typed)	1.3	Date	<del> </del>	
Maddell Comment		BRADLEY G. HIL	L	10-	15-09	
Title	Office	NVIRONMENTAL MANAG	ER	2		
77)	1.1		1.4	·	······································	
Application approval does not warrant or certify that the applicant ho	lds legal	or equitable title to those rights i	n the subje	ect lease which would entitle	the applicant to conduct	
operations thereon.  Conditions of approval, if any, are attached.						
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, mak	eitac	rime for any nerson knowingly ar	id willfull€	to make to any department.	of agency of the United	
States any false, fictitious or fraudulent statements or representations as			ia (iaian	ME CETT	or agency of the United	
* (Instructions on page 2)						
				000 1 5 20	00 11111	
and of this				UU <b>OCT</b> 1520		
Federal Approval of this			ł			
Federal Approved Action is Necessary				DIV OF OIL GAS 8	MINING	

DIV OF OIL, GAS & MINING

# NBU 920-33D NWNW Sec. 33 T9S R20E UINTAH COUNTY, UTAH UTU-142430

# **ONSHORE ORDER NO. 1**

# DRILLING PROGRAM

# 1. Estimated Tops of Important Geologic Markers:

<u>Formation</u>	<u>Depth</u>
Uinta	0- Surface
Green River	1598'
Bird's Nest	1823'
Mahogany	2334'
Wasatch	5082'
Mesaverde	8404'
MVU2	9230'
MVL1	9722'
TD	10,500°

# 2. Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

Substance	<u>Formation</u>	<u>Depth</u>	
	Green River	1598'	
	Bird's Nest	1823'	
	Mahogany	2334'	
Gas	Wasatch	5082'	
Gas	Mesaverde	8404'	
Gas	MVU2	9230'	
Gas	MVL1	9722'	
Water	N/A		
Other Minerals	N/A		

# 3. Pressure Control Equipment (Schematic Attached)

Please see the Natural Buttes Unit Standard Operating Procedure (SOP).

# 4. Proposed Casing & Cementing Program:

Please see the Natural Buttes Unit SOP. See attached drilling diagram.

## 5. <u>Drilling Fluids Program</u>:

Please see the Natural Buttes Unit SOP.

#### 6. Evaluation Program:

Please see the Natural Buttes Unit SOP.

#### 7. Abnormal Conditions:

Maximum anticipated bottomhole pressure calculated at 10,500° TD, approximately equals 6,705 psi (calculated at 0.64 psi/foot).

Maximum anticipated surface pressure equals approximately 4,395 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

# 8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

#### 9. Variances:

Please see Natural Buttes Unit SOP Onshore Order #2 – Air Drilling Variance Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- Blowout Prevention Equipment (BOPE) requirements;
- Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

#### Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

Page 3

The air rig is then mobilized to drill the surface casing hole by drilling a 12-1/4 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 9-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

#### Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

#### Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

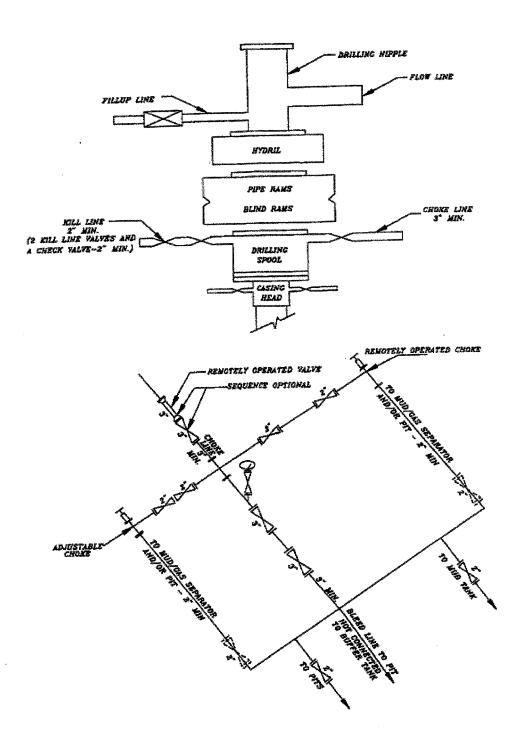
#### Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

#### 10. Other Information:

Please see Natural Buttes Unit SOP.

EXHIBIT A NBU 920-33D



# NBU 920-33D NWNW Sec. 33 T9S R20E UINTAH COUNTY, UTAH UTU-142430

## **ONSHORE ORDER NO. 1**

## MULTI-POINT SURFACE USE & OPERATIONS PLAN

#### 1. Existing Roads:

Refer to the attached location directions.

Refer to Topo Maps A and B for location of access roads within a 2-mile radius.

#### 2. Planned Access Roads:

Approximately ±430' of new access road is proposed. Refer to Topo Map B.

Existence of pipelines; maximum grade; turnouts; major cut and fills, culverts, or bridges; gates, cattle guards, fence cuts, or modifications to existing facilities were determined at the on-site.

Please see the Natural Buttes Unit Standard Operating Procedure (SOP).

#### 3. Location of Existing Wells Within a 1-Mile Radius:

Please refer to Topo Map C.

#### 4. Location of Existing & Proposed Facilities:

Please see the Natural Buttes Unit SOP.

Refer to Topo Map D for the location of the proposed pipelines.

#### Variances to Best Management Practices (BMPs) Requested:

This exception to the BMP should be granted by the BLM Authorized Officer because indurated bedrock, such as sandstone, is at or within 2 feet of the surface and the soil has a poor history for successful rehabilitation.

All facilities will be painted within six months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) will be excluded. The requested color is Shadow gray (2.5Y 6/2), a non-reflective earthtone.

Interim Surface Reclamation Plan:

This exception is requested due to the current twin and multi-well program. If determined that this well will not be a candidate for either twinning &/or multi-well the operator shall spread the topsoil pile on the location up to the rig anchor points. The location will be reshaped to the original contour to the extent possible. The operator will reseed the area using the BLM recommended seed mixture and reclamation methods.

#### 5. Location and Type of Water Supply:

Please see the Natural Buttes SOP.

#### 6. Source of Construction Materials:

Please see the Natural Buttes SOP.

#### 7. Methods of Handling Waste Materials:

Please see the Natural Buttes SOP.

A plastic reinforced liner is to be used as discussed during on-site inspection. It will be a minimum of 20 mil thick and felt, with sufficient bedding used to cover any rocks. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. No trash or scrap that could puncture the liner will be disposed of in the pit.

Any produced water from the proposed well will be contained in a water tank and will then be hauled by truck to one of the pre-approved disposal sites: RNI, Sec. 5, T9S, R22E, NBU #159, Sec. 35, T9S R21E, Ace Oilfield, Sec. 2, T6S, R20E, MC&MC, Sec. 12, T6S, R19E, Pipeline Facility Sec. 36, T9S, R20E, Goat Pasture Evaporation Pond SW/4 Sec. 16, T10S, R22E, Bonanza Evaporation Pond Sec. 2, T10S, R23E (Request is in lieu of filing Form 3160-5, after initial production).

#### 8. Ancillary Facilities:

Please see the Natural Buttes SOP.

# 9. Well Site Layout: (See Location Layout Diagram)

The attached Location Layout Diagram describes drill pad cross-sections, cuts and fills, and locations of the mud tanks, reserve pit, flare pit, pipe racks, trailer parking, spoil dirt stockpile(s), and surface material stockpile(s).

Please see the attached diagram to describe rig orientation, parking areas, and access roads.

Location size may change prior to the drilling of the well due to the current rig availability. If the proposed location is not large enough to accommodate the drilling rig. The location will be resurveyed and a form 3160-5 will be submitted.

#### 10. Plans for Reclamation of the Surface:

Please see the Natural Buttes SOP.

Operator shall call the BIA for the seed mixture when the final reclamation occurs.

#### 11. Surface/Mineral Ownership:

The well pad and access road are located on lands owned by:

Ute Indian Tribe P.O. Box 70 Fort Duchesne, Utah 84026 (435) 722-5141

The mineral ownership is listed below:

United States of America Bureau of Land Management 170 South 500 East Vernal, UT 84078 (435)781-4400

#### 12. Stipulations/Notices/Mitigation:

There are no stipulations or notices for this location.

#### 13. Other Information:

A Class III archaeological survey has been performed and will be submitted upon receipt. Paleo report is attached.

#### 14. Lessee's or Operator's Representative & Certification:

Raleen White Sr. Regulatory Analyst Kerr-McGee Oil & Gas Onshore LP P.O. Box 173779 Denver, CO 80217-3779 (720) 929-6666 Tommy Thompson Drilling Manager Kerr-McGee Oil & Gas Onshore LP P.O. Box 173779 Denver, CO 80217-3779 (720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under the terms and conditions of the lease for the operations conducted upon leased lands.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond # 1774 1974 1975.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

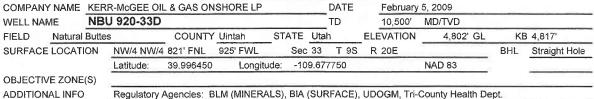
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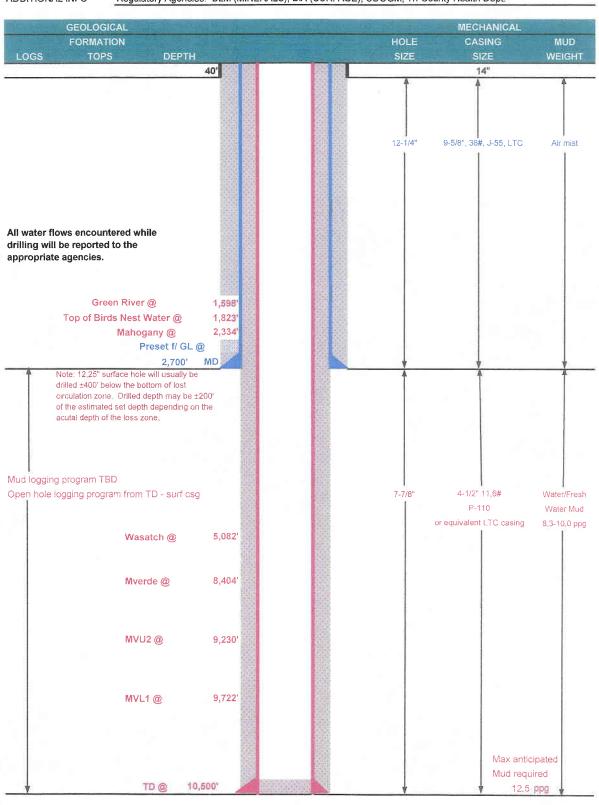
1-13-2009

Date



# KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM







# KERR-McGEE OIL & GAS ONSHORE LP

#### **DRILLING PROGRAM**

#### **CASING PROGRAM**

									DESIGN FACTO	DRS
	SIZE	INT	ERVA		WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION
CONDUCTOR	14"		0-40'							
					1		100	3,520	2,020	453,000
SURFACE	9-5/8"	0	to	2700	36.00	J-55	LTC	0.78	1.60	5.93
		1000 2		F n As	2011		10. 10. 10	10,690	7,580	279,000
PRODUCTION	4-1/2"	0	to	10500	11.80	P-110	LTC	2.37	1.11	2.62
				1	No. of the last		A Street			
									1	

- 1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))
- 2) MASP (Prod Casing) = Pore Pressure at TD (0,22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD =

12.5

ppg)

0,22 psi/ft = gradient for partially evac wellbore

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing\*Buoy.Fact, of water)

VIASP 4,395 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

(Burst Assumptions: TD =

12.5 ppg)

0.64 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

MABHP 6,705 psi

#### CEMENT PROGRAM

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE L	EAD 500	Premium cmt + 2% CaCl	215	60%	15,60	1.18
Option 1		+ 25 pps flocele		111		-0.5
TOP OUT CM	T(1) 200	20 gals sodium silicate + Premium cmt	50		15,60	1.18
		+ 2% CaCl + 25 pps flocele	III III II II II		1 × 1 3 × 1	di esti di mila
TOP OUT CM	T(2) as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
SURFACE	(A) (A)	NOTE: If well will circulate water to su	ırface, opti	on 2 will be	utilized	8
Option 2	EAD 1500	Prem cmt + 16% Gel + 10 pps gilsonite	170	35%	11:00	3,82
		+ 25 pps Flocele + 3% salt BWOC		CO MA		1 2 11 2 11
	TAIL 500	Premium cmt + 2% CaCl	180	35%	15,60	1.18
		+ 25 pps flocele			SAC AND SALE	1 2 PM
TOP OUT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION	EAD 4,580'	Premium Lite II + 3% KCl + 0.25 pps	500	60%	11.00	3.38
	100	celloflake + 5 pps gilsonite + 10% gel		STATE OF		AUL AU
		+ 0.5% extender				
			1000	S S S S S S	A 11 13 18 18 18	West Aller
	TAIL 5,920'	50/50 Poz/G + 10% salt + 2% gei	1660	60%	14,30	1.31
	W. 1385	+.1% R-3	S Land		a in the way and	

<sup>\*</sup>Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

#### FLOAT EQUIPMENT & CENTRALIZERS

SURFACE

Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe.

PRODUCTION

Float shoe, 1 jt, float collar. Centralize first 3 joints & every third joint to top of tail cement with bow spring centralizers.

#### ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip.

Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Drop Totco surveys every	/ 2000'.	Maximum allow	able hole a	angle is 5 degrees

Most rigs have PVT Systems	s for mud monitoring. If no PVT is available, visual monitoring	will be utililzed.	
DRILLING ENGINEER:		DATE:	
	John Huycke / Grant Schluender		
DRILLING SUPERINTENDENT:		DATE:	
	John Markel / Level Vouna		

<sup>\*</sup>Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

#### WELL PAD LEGEND

WELL LOCATION EXISTING CONTOURS (2' INTERVAL) PROPOSED CONTOURS (2' INTERVAL

#### WELL PAD NBU 920-33D QUANTITIES

EXISTING GRADE @ LOC, STAKE = 4,803.7' FINISHED GRADE ELEVATION = 4,801.8' CUT SLOPES = 1.5:1 FILL SLOPES = 1.5:1

TOTAL CUT FOR WELL PAD = 14,051 C.Y. TOTAL FILL FOR WELL PAD = 4,320 C.Y. TOPSOIL @ 6" DEPTH = 3,058 C.Y. EXCESS MATERIAL = 9,731 C.Y. TOTAL DISTURBANCE = 3.79 ACRES SHRINKAGE FACTOR = 1.10 SWELL FACTOR = 1.00 RESERVE PIT CAPACITY (2' OF FREEBOARD) +/- 25,880 BARRELS RESERVE PIT VOLUME +/- 7,185 CY BACKFLOW PIT CAPACITY (2' OF FREEBOARD) +/- 8,780 BARRELS BACKFLOW PIT VOLUME +/- 2,520 CY

# KERR-MCGEE OIL & GAS ONSHORE L.P.

1099 18th Street - Denver, Colorado 80202

NBU 920-33D WELL PAD - LOCATION LAYOUT 821' FNL, 925' FWL NW1/4 NW1/4 SECTION 33, T9S, R20E, S.L.B.&M., UINTAH COUNTY, UTAH



CONSULTING, LLC 371 Coffeen Avenue Sheridan WY 82801 Phone 307-674-0609 Fax 307-674-0182

Scale:	1"=100'	Date:	12/15/08	SHEET NO:	
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REVISED	):		DATE		2 OF 9

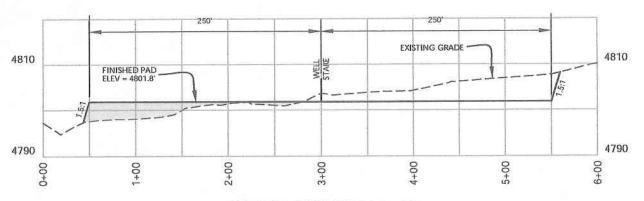


HORIZONTAL 0 50

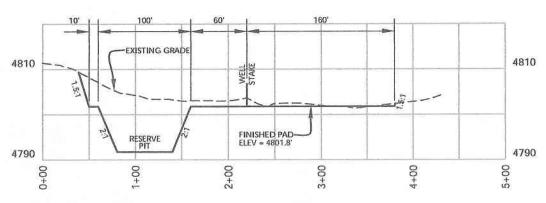
2' CONTOURS

Timberline Engineering & Land Surveying, Inc. 38 WEST 100 NORTH

(435) 789-1365 VERNAL, UTAH 84078



**CROSS SECTION A-A'** 



**CROSS SECTION B-B'** 

KERR-MCGEE OIL & GAS ONSHORE L.P.

1099 18th Street - Denver, Colorado 80202

NBU 920-33D
WELL PAD - CROSS SECTIONS
821' FNL, 925' FWL
NW1/4 NW1/4 SECTION 33, T9S, R20E,
S.L.B.&M., UINTAH COUNTY, UTAH

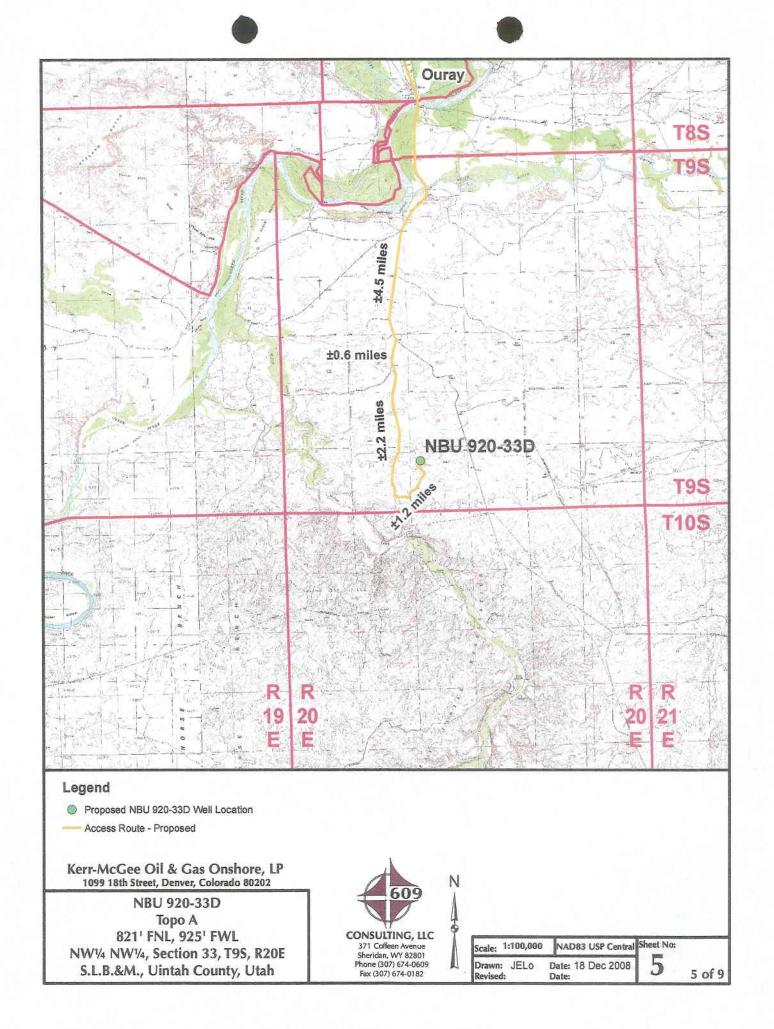


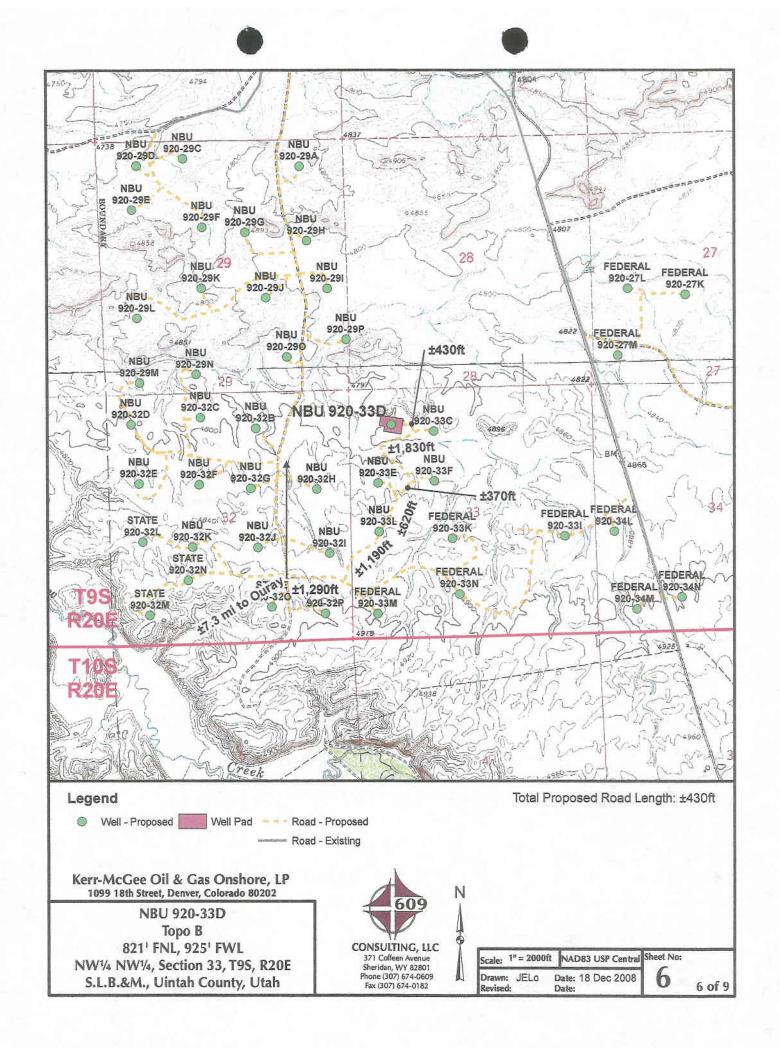
CONSULTING, LLC 371 Coffeen Avenue Sheridan WY 82801 Phone 307-674-0609 Fax 307-674-0182

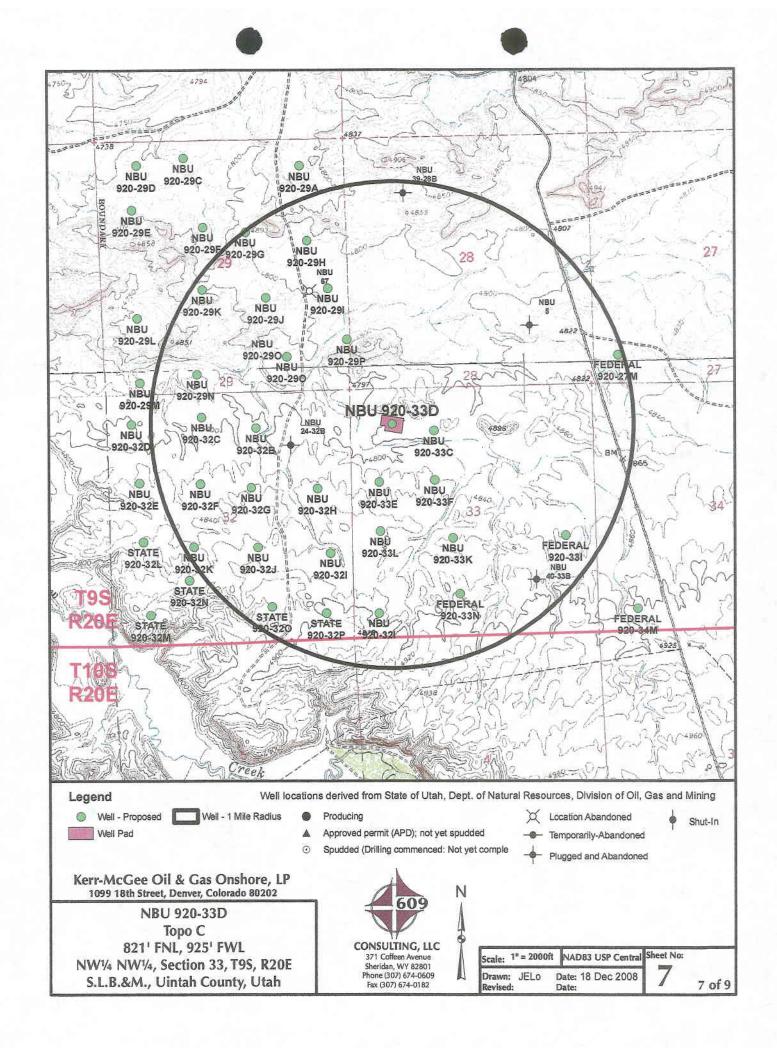
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HORIZONTAL	0	50	100
VERTICAL	0	10	20 1" = 20'

Timberline	(435) 789-1365		
Engineering & Land	Surveying, Inc.		
38 WEST 100 NORTH	VERNAL, UTAH 84078		







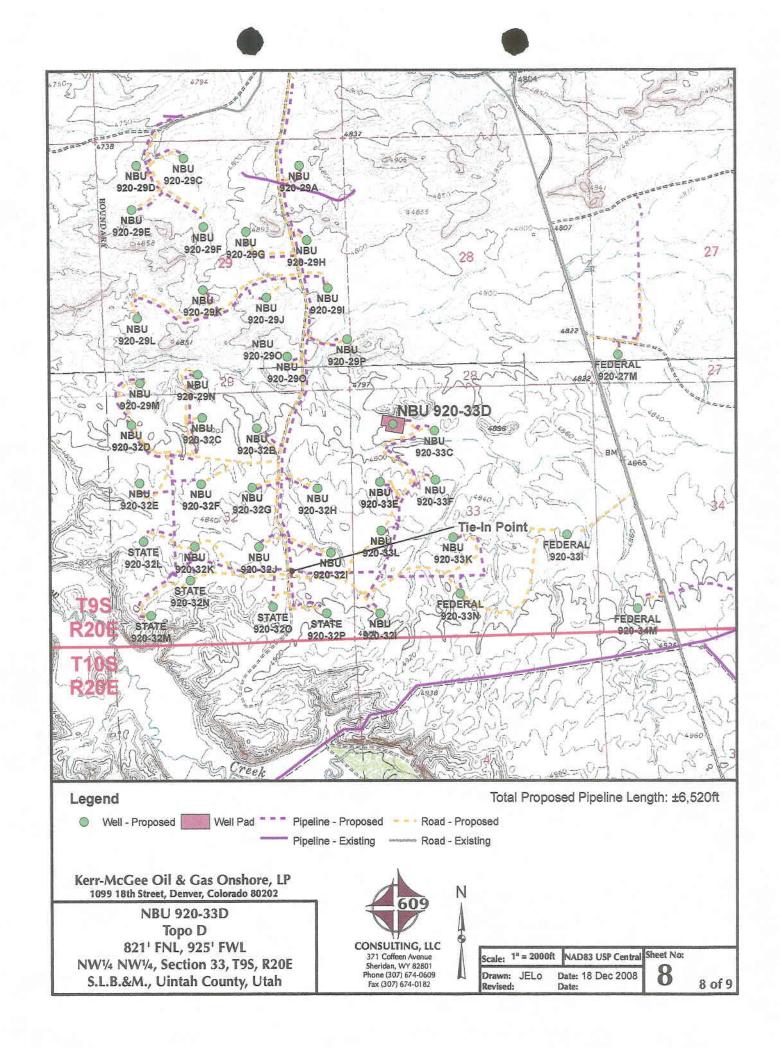




PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE

CAMERA ANGLE: NORTHEASTERLY

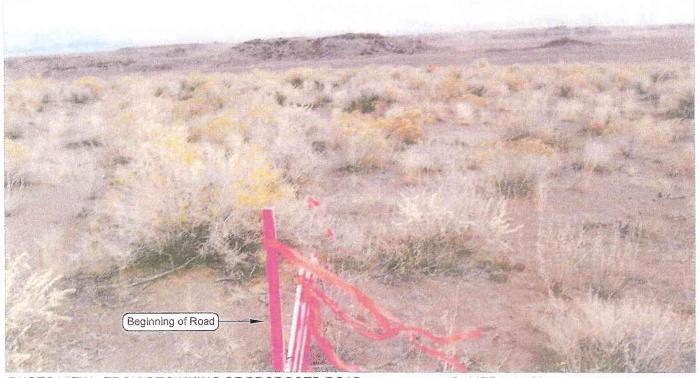


PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD

CAMERA ANGLE: SOUTHWESTERLY

Kerr-McGee Oil & Gas Onshore, LP

1099 18th Street - Denver, Colorado 80202

NBU 920-33D 821' FNL, 925' FWL NW 1 NW 1 OF SECTION 33, T9S, R20E, S.L.B.&M. UINTAH COUNTY, UTAH.



CONSULTING, LLC 371 Coffeen Avenue Sheridan WY 82801 Phone 307-674-0609 Fax 307-674-0182

LOCATION	PHOTOS	DATE TAKEN: 11-03-08	
LOUATION		DATE DRAWN: 11-05-08	
TAKEN BY: M.S.B.	DRAWN BY: E.M.S.	REVISED:	

Timberline

(435) 789-1365 Engineering & Land Surveying, Inc. 38 WEST 100 NORTH VERNAL, UTAH 84078

SHEET 4 OF 9

# Kerr-McGee Oil & Gas Onshore, LP NBU 920-33D Section 33, T9S, R20E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 13.9 MILES TO THE JUNCTION OF STATE HIGHWAY 88. EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION ALONG STATE HIGHWAY 88 APPROXIMATELY 16.8 MILES TO OURAY, UTAH. FROM OURAY, PROCEED IN A SOUTHERLY DIRECTION ALONG THE SEEP RIDGE ROAD (COUNTY B ROAD 2810) APPROXIMATELY 4.5 MILES TO THE INTERSECTION OF THE WILD HORSE BENCH ROAD (A CLASS D COUNTY ROAD). EXIT RIGHT AND PROCEED IN SOUTHERLY DIRECTION ALONG THE WILD HORSE BENCH ROAD APPROXIMATELY 0.6 MILES TO THE INTERSECTION OF THE WILLOW CREEK ROAD (A CLASS D COUNTY ROAD). EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION ALONG THE WILLOW CREEK ROAD APPROXIMATELY 2.2 MILES TO THE PROPOSED ACCESS ROAD. FOLLOW ROAD FLAGS IN AN EASTERLY, THEN NORTHEASTERLY DIRECTION APPROXIMATELY 2,480 FEET TO THE PROPOSED NBU 920-33L WELL PAD. PROCEED IN A NORHEATERLY DIRECTION (CROSSING THE WELL PAD) APPROXIMATELY 500 FEET. CONTINUE FOLLOWING ROAD FLAGS IN A NORTHEASTERLY, THEN NORTHWESTERLY, THEN NORTHEASTERLY DIRECTION APPROXIMATELY 3,250 FEET TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 39.2 MILES IN A SOUTHERLY DIRECTION.

# Paleontological Reconnaissance Survey Report

Survey of Kerr McGee's Proposed Gathering Pipeline, Well Pads, Access Roads, and Pipelines for "NBU #920-33C, D, E, F, & L" & "Federal #920-33M" (Sec. 33, T 9 S, R 20 E)

Big Pack Mtn NW Topographic Quadrangle Uintah County, Utah

January 9, 2009

Prepared by Stephen D. Sandau Paleontologist for Intermountain Paleo-Consulting P. O. Box 1125 Vernal, Utah 84078

#### INTRODUCTION

At the request of Raleen White of Kerr McGee Onshore LP and authorized by Bruce Pargeets of the Ute Indian Tribe and by Larry Love, Director of the Ute Indian Tribe's Energy and Minerals Department, a paleontological reconnaissance survey of Kerr McGee's proposed gathering pipeline, well pads, access roads, and pipelines for "NBU #920-33C, D, E, F, & L" & "Federal #920-33M" (Sec. 33, T 9 S, R 20 E) was conducted by Simon Masters on December 9, 2008. The survey was conducted under the Ute Indian Tribe Business License FY 2009, #A09-1308 and the accompanying Access Permit (effective 10/15/2008 through 3/31/2009). This survey to locate, identify and evaluate paleontological resources was done to meet requirements of the National Environmental Policy Act of 1969 and other State and Federal laws and regulations that protect paleontological resources.

#### FEDERAL AND STATE REQUIREMENTS

As mandated by the Federal and State government, paleontologically sensitive geologic formations on State lands that are considered for exchange or may be impacted due to ground disturbance require paleontological evaluation. This requirement complies with:

- 1) The National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321.et. Seq., P.L. 91-190):
- 2) The Federal Land Policy and Management Act (FLPMA) of 1976 (90 Stat. 2743, 43 U.S.C. § 1701-1785, et. Seq., P.L. 94-579) and
- 3) The National Historic Preservation Act.16 U.S.C. § 470-1, P.L. 102-575 in conjunction with 42 U.S.C. § 5320

The new Potential Fossil Yield Classification (PFYC) System (October, 2007) replaces the Condition Classification System from Handbook H-8270-1. Geologic units are classified based on the relative abundance of vertebrate fossils or scientifically significant invertebrate or plant fossils and their sensitivity to adverse impacts, with a higher class number indicating a higher potential.

- Class 1 Very Low. Geologic units (igneous, metamorphic, or Precambrian) not likely to contain recognizable fossil remains.
- Class 2 Low. Sedimentary geologic units not likely to contain vertebrate fossils or scientifically significant non-vertebrate fossils. (Including modern eolian, fluvial and colluvial deposits etc...)
- Class 3 Moderate or Unknown. Fossiliferous sedimentary geologic units where fossil content varies in significance, abundance, and predictable occurrence; or sedimentary units of unknown fossil potential.
  - Class 3a Moderate Potential. The potential for a project to be sited on or impact a significant fossil locality is low, but is somewhat higher for common fossils.
  - Class 3b Unknown Potential. Units exhibit geologic features and preservational conditions that suggest significant fossils could be present, but

little information about the paleontological resources of the unit or the area is known.

- Class 4 High. Geologic units containing a high occurrence of vertebrate fossils or scientifically significant invertebrate or plant fossils, but may vary in abundance and predictability.
  - O Class 4a Outcrop areas with high potential are extensive (greater than two acres) and paleontological resources may be susceptible to adverse impacts from surface disturbing actions.
  - Class 4b Areas underlain by geologic units with high potential but have lowered risks of disturbance due to moderating circumstances such as a protective layer of soil or alluvial material; or outcrop areas are smaller than two contiguous acres.
- Class 5 Very High. Highly fossiliferous geologic units that consistently and predictably produce vertebrate fossils or scientifically significant invertebrate or plant fossils.
  - O Class 5a Outcrop areas with very high potential are extensive (greater than two acres) and paleontological resources may be susceptible to adverse impacts from surface disturbing actions.
  - O Class 5b Areas underlain by geologic units with very high potential but have lowered risks of disturbance due to moderating circumstances such as a protective layer of soil or alluvial material; or outcrop areas are smaller than two contiguous acres.

It should be noted that many fossils, though common and unimpressive in and of themselves, can be important paleo-environmental, depositional, and chronostratigraphic indicators.

#### LOCATION

Kerr McGee's proposed gathering pipeline, well pads, access roads, and pipelines for "NBU #920-33C, D, E, F, & L" & "Federal #920-33M" (Sec. 33, T 9 S, R 20 E) are located on Ute Indian Reservation land about one mile east of Willow Creek, approximately 5-6 miles south of the Green River, and some 7-8 miles south of Ouray, Utah The project area can be found on the Big Pack Mtn NW 7.5 minute U. S. Geological Survey Quadrangle Map, Uintah County, Utah.

#### PREVIOUS WORK

The basins of western North America have long produced some of the richest fossil collections in the world. Early Cenozoic sediments are especially well represented throughout the western interior. Paleontologists started field work in Utah's Uinta Basin as early as 1870 (Betts, 1871; Marsh, 1871, 1875a, 1875b). The Uinta Basin is located in the northeastern corner of Utah and covers approximately 31,000 sq. km (12,000 sq. miles) ranging in elevation from 1,465 to 2,130 m (4,800 to 7,000 ft) (Marsell, 1964; Hamblin et al., 1987). Middle to late Eocene time marked a period of dramatic change in the climate, flora, (Stucky, 1992) and fauna (Black and Dawson, 1966) of North America.

## GEOLOGICAL AND PALEONTOLOGICAL OVERVIEW

Early in the geologic history of Utah, some 1,000 to 600 Ma, an east-west trending basin developed creating accommodation for 25,000 feet of siliclastics. Uplift of that filled-basin during the early Cenozoic formed the Uinta Mountains (Rasmussen et al., 1999). With the rise of the Uinta Mountains the asymmetrical synclinal Uinta Basin is thought to have formed through the effects of down warping in connection with the uplift. Throughout the Paleozoic and Mesozoic deposition fluctuated between marine and non-marine environments laying down a thick succession of sediments in the area now occupied by the Uinta Basin. Portions of these beds crop out on the margins of the basin due to tectonic events during the late Mesozoic.

Early Tertiary Uinta Basin sediments were deposited in alternating lacustrine and fluvial environments. Large shallow lakes periodically covered most of the basin and surrounding areas during early to mid Eocene time (Abbott, 1957). These lacustrine sediments show up in the western part of the basin, dipping 2-3 degrees to the northeast and are lost in the subsurface on the east side. The increase of cross-bedded, coarse-grained sandstone and conglomerates preserved in paleo-channels indicates a transition to a fluvial environment toward the end of the epoch.

Four Eocene formations are recognized in the Uinta Basin: the Wasatch, Green River, Uinta and Duchesne River, respectively (Wood, 1941). The Uinta Formation is subdivided into two lithostratigraphic units namely: the Wagonhound Member (Wood, 1934), formerly known as Uinta A and B (Osborn, 1895, 1929) and the Myton Member previously regarded as the Uinta C.

Within the Uinta Basin in northeast Utah, the Uinta Formation in the western part of the basin is composed primarily of lacustrine sediments inter-fingering with over-bank deposits of silt, and mudstone and westward flowing channel sands and fluvial clays, muds, and sands in the east (Bryant et al, 1990; Ryder et al, 1976). Stratigraphic work done by early geologists and paleontologists within the Uinta Formation focused on the definition of rock units and attempted to define a distinction between early and late Uintan faunas (Riggs, 1912; Peterson and Kay, 1931; Kay 1934). More recent work focused on magnetostratigraphy, radioscopic chronology, and continental biostratigraphy (Flynn, 1986; Prothero, 1996). Well-known for its fossiliferous nature and distinctive mammalian fauna of mid-Eocene Age, the Uinta Formation is the type formation for the Uintan Land Mammal Age (Wood et al, 1941).

The Duchesne River Formation of the Uinta Basin in northeastern Utah is composed of a succession of fluvial and flood plain deposits composed of mud, silt, and sandstone. The source area for these late Eocene deposits is from the Uinta Mountains indicated by paleocurrent data (Anderson and Picard, 1972). In Peterson's (1931c) paper, the name "Duchesne Formation" was applied to the formation and it was later changed to the "Duchesne River Formation" by Kay (1934). The formation is divided up into four members: the Brennan Basin, Dry Gulch Creek, LaPoint, and Starr Flat (Anderson and Picard, 1972). Debates concerning the Duchesne River Formation, as to whether its age was late Eocene or early Oligocene, have surfaced throughout the literature of the last century (Wood et al., 1941; Scott 1945). Recent paleomagnetostratigraphic work (Prothero, 1996) shows that the Duchesne River Formation is late Eocene in time.

#### FIELD METHODS

In order to determine if the proposed project area contained any paleontological resources, a reconnaissance survey was performed. An on-site observation of the proposed areas undergoing surficial disturbance is necessary because judgments made from topographic maps alone are often unreliable. Areas of low relief have potential to be erosional surfaces with the possibility of bearing fossil materials rather than surfaces covered by unconsolidated sediment or soils.

When found within the proposed construction areas, outcrops and erosional surfaces were checked to determine if fossils were present and to assess needs. Careful effort is made during surveys to identify and evaluate significant fossil materials or fossil horizons when they are found. Microvertebrates, although rare, are occasionally found in anthills or upon erosional surfaces and are of particular importance.

#### PROJECT AREA

The project area is situated in the Wagonhound Member (Uinta A & B) of the Uinta Formation. The following list provides a description of the individual wells and their associated pipelines and access roads.

#### **NBU #920-33C**

The proposed well pad, access road, and pipeline are located in the NE/NW quarter-quarter section of Sec. 33, T 9 S, R 20 E (Figure 1). The staked well pad, pipeline, and access road are located primarily on desert pavement of resistant, varnished sandstone fragments and colluvium of the Wagonhound Member (Uinta A and B) of the Uinta Formation. Adjacent to the staked well pad, access road, and pipeline is a butte consisting of alternating fluvial, quartz-rich, tan, medium-grained sandstone; purple siltstone; green-purple mudstone; and structureless, purple, fine-grained, globular sandstone capped by a massive, tan sandstone.

A large mammalian distal humerus (?brontothere) was discovered on the southwestern corner of the well pad, near the access road and pipeline tie-in, as well as unidentifiable, highly weathered turtle fragments. The distal humerus shows signs of transverse compression, indicating it may have sourced from the sandstone in the butte.

#### NBU #920-33D

The proposed access road and pipeline begin off the northern side of the well pad for "NBU 920-33L" in the NW/SW quarter-quarter section of Sec. 33, T 9 S, R 20 E (Figure 1). They travel northeast for about a quarter of a mile, turns and travels northwest for another quarter of a mile, turns northeast again and travels a little under a quarter mile, before turning west and travels a few hundred feet to the proposed well pad in the NW/NW quarter-quarter section of Sec. 33. The staked well pad, pipeline, and access road are located primarily on desert pavement of resistant, varnished sandstone fragments and colluvium of the Wagonhound Member (Uinta A and B) of the Uinta Formation. Along the northern edge of the well pad is a butte consisting of alternating fluvial, quartz-rich, tan, medium-grained sandstone; purple siltstone; green-purple mudstone; and structureless, purple, fine-grained, globular sandstone capped by a massive, tan sandstone. Many individual turtles were located, one of which is referred to *Apalone* sp. The material is sourcing from the sandstone on the pad.

#### NBU #920-33E

The proposed well pad, access road, and pipeline are located in the SW/NW quarter-quarter section of Sec. 33, T 9 S, R 20 E (Figure 1). The staked well pad, access road, and pipeline are located on a thin soil horizon with dense, low shrub cover. Outcrops near the well pad consist of a well-indurated, purple siltstone; purple, fine-grained sandstone; and green mudstone. No fossil resources were discovered.

#### NBU #920-33F

The proposed well pad, access road, and pipeline are located in the SE/NW quarter-quarter section of Sec. 33, T 9 S, R 20 E (Figure 1). The staked well pad, access road, and pipeline are located on a thin soil horizon with dense, low shrub cover. Outcrops near the well pad consist of a well-indurated, purple siltstone; purple, fine-grained sandstone; and green mudstone. No fossil resources were discovered.

#### NBU #920-33L

The proposed well pad, access road, and pipeline are located in the NW/SW quarter-quarter section of Sec. 33, T 9 S, R 20 E (Figure 1). The staked well pad, access road, and pipeline are located on a thin soil horizon with dense, low shrub cover. Outcrops near the well pad consist of a well-indurated, purple siltstone; purple, fine-grained sandstone; and green mudstone. No fossil resources were discovered.

#### Federal #920-33M

The proposed well pad and pipeline are located in the SW/SW quarter-quarter section of Sec. 33 T 9 S, R 20 E (Figure 1). The proposed pipeline begins off the Gathering Pipeline and travels southwest for 0.2 miles where it ties in to the proposed well pad. The proposed access road begins in the SE/SE quarter-quarter section of Sec. 32, T 9 S, R 20 E and heads east for approximately 0.3 miles where it terminates at the proposed well pad. The staked well pad,

access road, and pipeline are located on a thin soil horizon with dense, low shrub cover. Outcrops near the well pad are a well-indurated; purple siltstone and purple, fine-grained sandstone. No fossil resources were discovered.

**Gathering Pipeline** 

The proposed Gathering Pipeline ties in to another pipeline in the SE/SE quarter-quarter section of Sec. 32, T 9 S, R 20 S and travels east for about half a mile before terminating at another pipeline tie in the SW/SW quarter-quarter section of Sec. 33 (Figure 1). The pipeline is located on a thin soil horizon with dense, low shrub cover. Outcrops on or near the pipeline route are a well-indurated, purple siltstone and purple, fine-grained sandstone. No fossil resources were discovered.

#### SURVEY RESULTS

PROJECT	GEOLOGY	PALEONTOLOGY
"NBU #920- 33C" (Sec. 33, T 9 S, R 20 E)	The staked well pad, pipeline, and access road are located primarily on desert pavement of resistant, varnished sandstone fragments and colluvium of the Wagonhound Member (Uinta A and B) of the Uinta Formation. Adjacent to the staked well pad, access road, and pipeline is a butte consisting of alternating fluvial, quartzrich, tan, medium-grained sandstone; purple siltstone; green-purple mudstone; and structureless, purple, fine-grained, globular sandstone capped by a massive, tan sandstone.	A large mammalian distal humerus (?brontothere) was discovered on the southwestern corner of the well pad, near the access road and pipeline tie-in, as well as unidentifiable, highly weathered turtle fragments. The distal humerus shows signs of transverse compression, indicating it may have sourced from the sandstone in the butte.  Class 4a
"NBU #920- 33D" (Sec. 33, T 9 S, R 20 E)	The staked well pad, pipeline, and access road are located primarily on desert pavement of resistant, varnished sandstone fragments and colluvium of the Wagonhound Member (Uinta A and B) of the Uinta Formation. Along the northern edge of the well pad is a butte consisting of alternating fluvial, quartz-rich, tan, medium-grained sandstone; purple siltstone; green-purple mudstone; and structureless, purple, fine-grained, globular sandstone capped by a massive, tan sandstone.	Many individual turtles were located, one of which is referred to <i>Apalone</i> sp. The material is sourcing from the sandstone on the pad.  Class 4a
"NBU #920- 33E" (Sec. 33, T 9 S, R 20 E)	The staked well pad, access road, and pipeline are located on a thin soil horizon with dense, low shrub cover. Outcrops near the well pad consist of a well-indurated, purple siltstone; purple, fine-grained sandstone; and green mudstone.	No fossil resources were discovered. Class 3a

"NBU #920- 33F" (Sec. 33, T 9 S, R 20 E)	The staked well pad, access road, and pipeline are located on a thin soil horizon with dense, low shrub cover. Outcrops near the well pad consist of a well-indurated, purple siltstone; purple, fine-grained sandstone; and green mudstone.	No fossil resources were discovered. Class 3a
 "NBU #920- 33L" (Sec. 33, T 9 S, R 20 E)	The staked well pad, access road, and pipeline are located on a thin soil horizon with dense, low shrub cover. Outcrops near the well pad consist of a well-indurated, purple siltstone; purple, fine-grained sandstone; and green mudstone.	No fossil resources were discovered. Class 3a
"Federal #920- 33M" (Sec. 33, T 9 S, R 20 E)	The staked well pad, access road, and pipeline are located on a thin soil horizon with dense, low shrub cover. Outcrops near the well pad are a well-indurated; purple siltstone and purple, fine-grained sandstone.	No fossil resources were discovered.  Class 3a
"Gathering Pipeline" (Sec. 32 & 33, T 9 S, R 20 E)	The pipeline is located on a thin soil horizon with dense, low shrub cover. Outcrops on or near the pipeline route are a well-indurated, purple siltstone and purple, fine-grained sandstone.	No fossil resources were discovered.  Class 3a

#### RECOMMENDATIONS

A reconnaissance survey was conducted for Kerr McGee's proposed gathering pipeline, well pads, access roads, and pipelines for "NBU #920-33C, D, E, F, & L" & "Federal #920-33M" (Sec. 33, T 9 S, R 20 E). The well pads and the associated access roads and pipelines covered in this report showed some signs of vertebrate fossils, therefore, we advise the following recommendations.

Due to the fossils found and the amount of exposed bed rock containing these fossils, we recommend that a permitted paleontologist be present to monitor the beginning of the construction process and there after perform a spot monitor of the proposed access roads, pipelines, and well pads for "NBU #920-33C and NBU #920-33D."

Furthermore, we recommend that no other paleontological restrictions should be placed on the development of the remaining projects included in this report.

Nevertheless, if any vertebrate fossil(s) are found during construction within the project area, recommendations are that a paleontologist is immediately notified in order to collect fossil materials in danger of being destroyed. Any vertebrate fossils found should be carefully moved outside of the construction areas to be check by a permitted paleontologist.

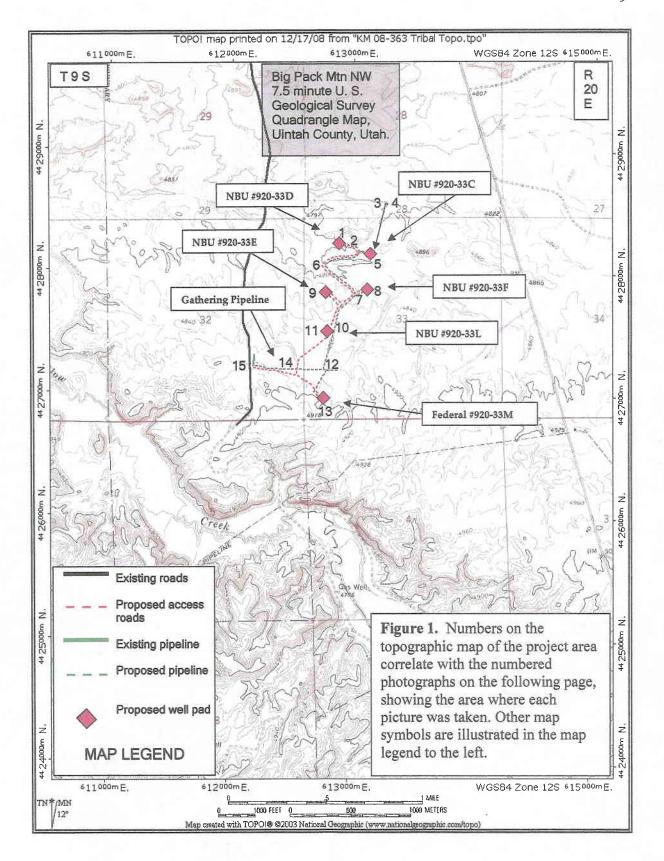


Figure 1. continued...

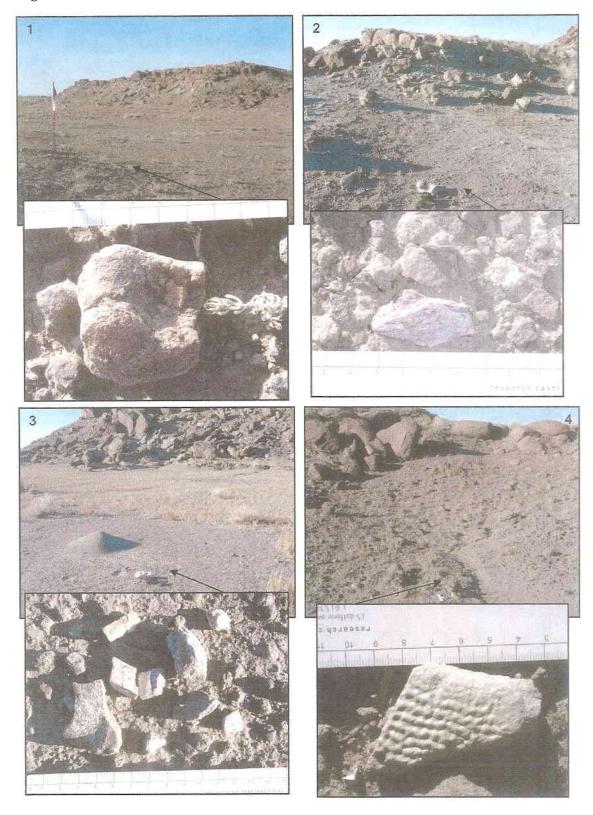
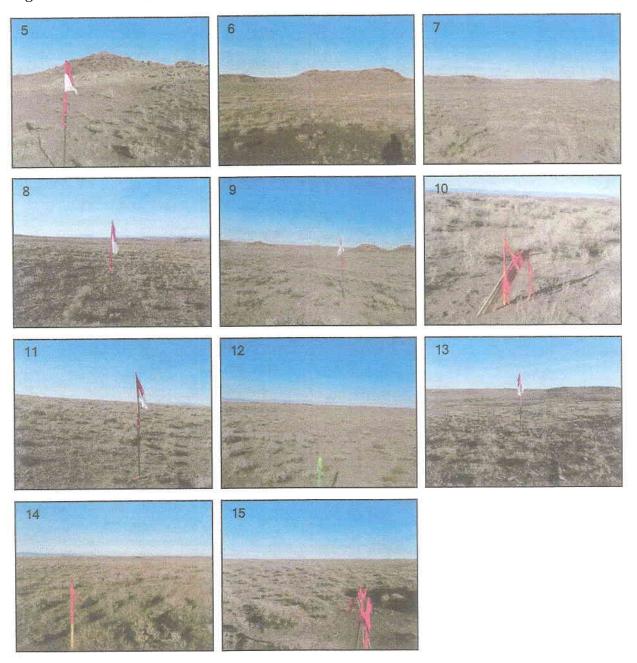


Figure 1. continued...



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Lieutenant Governor

# State of Utah

# DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA

Division Director

October 15, 2009

Kerr-McGee Oil & Gas Onshore, LP P O Box 173779 Denver, CO 80217-3779

Re:

NBU 920-33D Well, 821' FNL, 925' FWL, NW NW, Sec. 33, T. 9 South, R. 20 East,

Uintah County, Utah

#### Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann.§ 40-6-1 et seq., Utah Administrative Code R649-3-1 et seq., and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-40567.

Sincerely,

Gil Hunt

Associate Director

pab Enclosures

cc:

**Uintah County Assessor** 

Bureau of Land Management, Vernal Office



<b>Operator:</b>	Kerr-McGee Oil & Gas Onshore, LP		
Well Name & Number	NBU 920-33D		
API Number:	43-047-40567 UTU-142430		
Lease:			
Location: <u>NW NW</u>	Sec. 33	T. 9 South	<b>R.</b> <u>20 East</u>

# **Conditions of Approval**

#### 1. General

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

# 2. Notification Requirements

Notify the Division within 24 hours of spudding the well.

• Contact Carol Daniels at (801) 538-5284.

Notify the Division prior to commencing operations to plug and abandon the well.

• Contact Dustin Doucet at (801) 538-5281 office (801) 733-0983 home

# 3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

- 4. State approval of this well does not supersede the required federal approval, which must be obtained prior to drilling.
- 5. In accordance with Order in Cause No. 190-5(b) dated October 28, 1982, the Operator shall comply with requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operator shall ensure that the surface and/or production casing is properly cemented over the entire oil shale interval as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the Division.

			FORM 9
STATE OF UTAH			l lows
DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING			5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-142430
SUNDRY NOTICES AND REPORTS ON WELLS			6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE
	sals to drill new wells, significantly deepen ex ugged wells, or to drill horizontal laterals. Use		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 920-33D
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047405670000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th S	PHONE Street, Suite 600, Denver, CO, 80217 3779	<b>E NUMBER:</b> 720 929-6007 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0821 FNL 0925 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NWNW Section: 3.	IP, RANGE, MERIDIAN: 3 Township: 09.0S Range: 20.0E Meridian: S	5	STATE: UTAH
11. CHE	CK APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPORT,	OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	☐ CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	☐ CHANGE WELL NAME
10/15/2010	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
	DEEPEN	FRACTURE TREAT	□ NEW CONSTRUCTION
SUBSEQUENT REPORT Date of Work Completion:		_	
	OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	✓ APD EXTENSION
Report Date.	☐ WILDCAT WELL DETERMINATION	OTHER	OTHER:
12. DESCRIBE PROPOSED OR CO	DMPLETED OPERATIONS. Clearly show all perting	nent details including dates, depths, v	volumes, etc.
	Gas Onshore, L.P. (Kerr-McGee)		
l .	APD for the maximum time allow		Approved by the
undersigned	with any questions and/or com	ments. Thank you.	<b>Utah Division of</b>
			Oil, Gas and Mining
		_	Ostalos 11 2010
Date: October 11, 2010			
By Rully III			
by			
NAME (PLEASE PRINT)	PHONE NUMBER	TITLE	
Danielle Piernot	720 929-6156	Regulatory Analyst	
SIGNATURE N/A		<b>DATE</b> 10/11/2010	



# The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices** 

# Request for Permit Extension Validation Well Number 43047405670000

**API:** 43047405670000 Well Name: NBU 920-33D

Location: 0821 FNL 0925 FWL QTR NWNW SEC 33 TWNP 090S RNG 200E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

**Date Original Permit Issued:** 10/15/2009

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not requ

ire revi	sion. Following is a checklist of	f some items related to th	e application, w	hich should be verified.
	ated on private land, has the over the	wnership changed, if so, h	as the surface	agreement been
	any wells been drilled in the vi requirements for this location		ll which would a	affect the spacing or
	nere been any unit or other agr s proposed well? 🔵 Yes 🍙		t could affect th	e permitting or operation
	there been any changes to the the proposed location?		vnership, or rig	ntof- way, which could
• Has tl	ne approved source of water fo	r drilling changed? 🔘 🕦	res 📵 No	
	there been any physical chang le in plans from what was disci			
• Is bo	nding still in place, which cover	rs this proposed well? 🌘	Yes 🔵 No	Approved by the Utah Division of I, Gas and Mining
nature:	Danielle Piernot Dat	e: 10/11/2010		
Title:	Regulatory Analyst Representin	g: KERR-MCGEE OIL & GAS	ONSHOR PALE:	October 11, 2010
			7	-0 (1)(1)

Sigi

# United States Department of the Interior



## BUREAU OF LAND MANAGEMENT

Green River District-Vernal Field Office 170 South 500 East Vernal, UT 84078 (435) 781-4400 Fax: (435) 781-4410 http://www.blm.gov/ut/st/en/fo/vernal.html



NOV 0 1 2010

IN REPLY REFER TO: 3160 (UTG011)

Julie Jacobson Kerr McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779

Re:

Request to Return APD Well No. NBU 920-33D NWNW, Sec. 33, T9S, R20E Uintah County, Utah Lease No. UTU-0142430 Natural Buttes Unit 43 047 40567

Dear Ms. Jacobson:

The Application for Permit to Drill (APD) for the above referenced well received in this office on March 6, 2009, is being returned unapproved per your request to this office in an email message received on September 30, 2010. If you intend to drill at this location at a future date, a new APD must be submitted.

If you have any questions regarding APD processing, please contact Cindy Severson at (435) 781-4455.

Sincerely,

James H<u>. Sparge</u>r

Acting Assistant Field Manager Lands & Mineral Resources

**Enclosures** 

CC:

**UDOGM** 

RECEIVED NOV 17 2010

DIV. OF OIL, GAS & MINING



# State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

December 16, 2011

Danielle Piernot Kerr McGee Oil & Gas Onshore, L.P. P.O. Box 173779 Denver, CO 80217 43 047 40567 NBU 920-33D 95 20E 33

Re:

APDs Rescinded for Kerr McGee Oil & Gas Onshore, L.P.

**Uintah County** 

Dear Ms. Piernot:

Enclosed find the list of APDs that you requested to be rescinded. No drilling activity at these locations has been reported to the division. Therefore, approval to drill these wells is hereby rescinded, effective December 16, 2011.

A new APD must be filed with this office for approval <u>prior</u> to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely.

Diana Mason

Environmental Scientist

cc:

Well File

Bureau of Land Management, Vernal



<u>~</u>	43-047-40567	NBU 920-33D
,	43-047-38813	BONANZA 1023-12C
	43-047-40416	NBU 677-26E
	43-047-40417	NBU 692-06E
	43-047-40418	NBU 712-35E
	43-047-50185	NBU 920-29A
	43-047-50186	NBU 920-29D
	43-047-50187	NBU 920-29E
	43-047-50188	NBU 920-29F
	43-047-50189	NBU 920-29G
	43-047-50190	NBU 920-29H
	43-047-38879	TABEE 34-197
	43-047-39829	NBU 922-18P3S
	43-047-39831	NBU 922-18N2S
	43-047-40444	NBU 921-10G4S
	43-047-40445	NBU 921-10F2S
	43-047-40446	NBU 921-10E3S
	43-047-40447	NBU 921-10F3T
	43-047-40437	NBU 1022-3C1S
	43-047-38913	BONANZA 1023-7E-4
	43-047-40567	NBU 920-33D